DOCUMENT RESUME

ED 332 300 EA 022 840

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TITLE Collegial Groups in School Improvement: Project SIGN.
PUB DATE May 91
NOTE 32p.; Paper presented at the Annual Meeting of the American Educational Research Association (Chicago, IL, April 3-7, 1991).
PUB TYPE Reports - Descriptive (141) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Change Strategies; *Collegiality; *Cooperative Programs; *Educational Improvement; Elementary Secondary Education; Higher Education; Institutional Cooperation; *Networks; Teacher Administrator Relationship; *Teamwork
IDENTIFIERS Isolation (Professional); School Culture; *School Improvement Groups Network Project NC; *University of North Carolina Greensboro

ABSTRACT

Project SIGN was a year-long school site improvement process conducted in four schools in one system. A school Improvement Groups Network (SIGN) Team included a site-level administrator, several teachers, and higher education, central office, and other resource persons cooperating in school improvement. SIGN provided collegial, focused, professional inservice training to refine schooling processes and pupil outcomes. Each SIGN established a goal, "gameplans" or incremental steps, and operating procedures. Major, positive, and lasting changes resulted. Project SIGN was aided in its goal achievement by following a communication/change model. The project was evaluated and validated by comparing it to other process and theoretic models. Program evaluations completed by participants indicated that SIGN was more collegial, productive, and effective than traditional inservice approaches. SIGN became a vehicle for districtwide improvement in 1990-91. Appendices contain a list of 30 references provided to participants, activity charts, and a table comparing SIGN with characteristics of effective inservice practices. (Author/MLH)

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COLLEGIAL GROUPS IN SCHOOL IMPROVEMENT: PROJECT SIGN*

AERA, 1991

Chicago, IL

Sec 5.23 Roundtable

May 3, 1991

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*This paper is derived from Project SIGN, a cooperative project between CLDS and UNCG. The project received funding assistance from the University of North Carolina Small Grants School-Based Research Program, 1989-90. Some sections of the paper and some data tables are taken directly from the Project SIGN Final Report (Achilles and Gaines, 1990).

ABSTRACT

Project SIGN was a year-long school-site improvement process conducted in four schools of one system. A School Improvement Groups Network (SIGN) team included a site-level administrator, several teachers, and higher education, central office and other resource persons cooperating in school improvement. SIGN provided collegial, focused, professional in-service to refine schooling processes and pupil outcomes. Each SIGN established a goal, "gameplans" or incremental steps, and operating procedures. Major, positive and lasting changes resulted. Project SIGN was aided in its goal achievement by following a communication/change model. Project SIGN was evaluated and validated by comparing it to other process and theoretic models; it matched well with all of the models.

Project SIGN became a vehicle for school improvement district-wide in 1990-91. Activities have been continued and expanded.

ACKNOWLEDGEMENTS

Proposers of the School Improvement Groups Network (SIGN) project were fortunate to implement the project in the Camp Lejeune Dependents' Schools System. Dr. E. Conrad Sloan, Superintendent, supported this project from the very beginning. Dr. Sloan has the curiosity and the courage to support thoughtful risk-taking by members of the school system. SIGN benefited from the commitment of resources that Dr. Sloan made possible and from his personal interest and active participation. Dr. Duane L. Linker, Associate Superintendent, provided critical advice and assistance with the financial and personnel aspects of SIGN. Dr. Wesley Guthrie, Director of Staff Development and Personnel Services, recognized SIGN as a viable in-service approach and provided technical assistance to the project. A special thanks to Dr. Norman Brooks, Assistant Superintendent for Instruction, Dr. Mary Beth Poole, Testing Coordinator, and all Central Office Coordinators who participated in the SIGN meetings. The teachers and administrators who formed the original SIGN deserve that special recognition reserved for frontline participants. They accepted the challenges and risks of leadership; SIGN was a success because of them.

One SIGN goal was to develop a network of people dedicated to improving education. That network included University of North Carolina at Greensboro faculty and others. Dr. Dale Brubaker brought not only a rich background in curriculum and leadership to SIGN but also long-term experience with school-based research in the Camp Lejeune schools. Dr. Ed Bell of East Carolina University provided practical and theoretical insights into essential topics, such as strategic planning, organizational culture, program evaluation, and consensus building. Dr. John Keedy of West Georgia College shared his work on Teacher Collegial Groups which provided the seed that eventually grew into SIGN.

SIGN is a successful school improvement process implemented in an outstanding school system. The strength of both is an awareness that they can be even better.

COLLEGIAL GROUPS IN SCHOOL IMPROVEMENT: PROJECT SIGN*

Introduction

School reform initiatives are a fact of life for educators. Griffiths, Stout and Forsyth (1988) refer to a "revolution in the way schools are organized," call for a change in the relationship between teachers and administrators, and recommend innovations in the preparation of education administrators (p. xiii). Words like restructure, reinvent and empowerment fill the journals. The what is clear; the how is less clear. How do principals, long asked to be strong leaders, learn new roles? How do teachers become leaders or become empowered? The how questions are unanswered. This research studied one process of school reform and the outcomes of the process in one middle-sized (4,000) school system.

The role of principal as instructional leader and the emergence of site-based management (SBM) are two challenges facing school leaders (Achilles and DuVall, 1989; Brubaker, 1985; Williams, 1988; Vann, Novotney & Knaub, 1977). In discussing SBM, Conley and Bacharach (1990) differentiate between a bureaucratic approach in which building administrators make most decisions and a participatory approach in which teachers have a greater voice. "The issue is not simply how to achieve school-site management but how to achieve collegial and collective management at the school level" (p. 540). In-service programs can assist school leaders in responding to these challenges, but according to Daresh (1987), in-service programs "are often perceived as a 'necessary evil' that is 'done to' people once in a while, in much the same way that the oil in the family car must be changed every few thousand miles." Daresh and LaPlant (1984) list 12 guidelines for designing effective in-service programs, including: effective in-service is directed toward local school and participant needs; actively involves participants in planning, implementing and evaluating programs; employs active learning processes (rather than passive techniques such as lectures); is part of a long-term systematic

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staff development plan; enables participants to share ideas and provide assistance to one another; is provided during school time.

Teacher Collegial Groups (TCGs) are effective in-service processes to improve instruction (Joyce, et al., 1989; Keedy, 1988 and 1989). These groups provide a setting for collaboration for change for teachers. Teachers identify problem areas and provide mutual support and advice as they work collaboratively to devise and implement improvement plans. College/University personnel, if added to TCGs, could assist in implementing and adapting the models, disseminate findings and incorporate new ideas from practice into their preparation programs.

TCG activity previously reported (Joyce, et al., 1989; Keedy, 1988 and 1989) included only teachers. This project involved one site-level administrator as a regular member of each group because (1) recent research shows that the principal is key in school improvement (e.g., effective schools research), (2) studies show that change in schools is not likely to occur without the support of the building leader (e.g., Berman and McLaughlin, 1974); (3) studies from the Texas R&D Center show the value of a second change facilitator. Added involvement is reasonable based on participative/collegial decision making research, expanded access to information and ideas, and the administrator's positional authority. Much of the project's theoretic basis comes from recent ideas about teacher professionalism, site-based management participative decision making, processes, and professional development activities.

School collegial groups that include building-level administrators will allow principals to learn strategies for instructional leadership from teachers. These groups have potential to encourage the teacher as decision maker (Keedy, 1988, 1989), promote professionalization (Joyce, et al., 1989), flatten out the bureaucratic structure, and meet the guidelines suggested by Daresh LaPlant (1984) for effective in-service education. The project should lead to: (1) Development of strategies for instructional leadership by principals, (2) Observable change in schools, (3) Demonstration of an action-oriented, involvement, approach to in-service, and (4) A reduction in teacher isolation and an increase in teacher leadership and collaboration to improve instruction.

Processes to Achieve Outcomes

1. School teams of a building administrator and 3-7 teachers from 4 schools and collaboration with central office and higher education personnel. (This was a School Improvement Group Network, or SIGN.)
2. Presenting key leadership concepts such as agenda setting, shared decision making, change processes and a strategic planning model to assist teams:
   a. in identifying problems (problem finding) in their schools in one of the five areas outlined by Haller and Knapp (1985);
   b. in implementing a problem-solving/dilemma reconciliation model to address these concerns.
3. Exploring organizational culture and site-based management in the work environment;
4. Monitoring and assessing each problem-solving approach during the school year;
5. Assessing project results after a full year of implementation.

Research Design/Method and Processes

This quasi-experimental study employed a "one-shot" pre/post design and equivalent (to the degree possible) control or comparison groups [Campbell and Stanley (1963, design #3)]. Treatment for administrators was the in-service and practice in conducting group processes (skill in instructional leadership) and (for teachers) the in-service, participation in, and use of results of collegial group work to practice teacher shared decision-making and implementation of carefully planned changes in individual classrooms.

Research methodology was a mixture of qualitative and quantitative techniques, including interview data, questionnaire results from both teachers and principals, direct observation, and archival measures (e.g., changes in student or teacher attendance, decreases in disciplinary actions, etc.). Outcomes 1, 3 and 4 (above)were obtained and assessed through observation, questionnaires and interviews. Outcome 2 (observable change) was driven by problems identified by participant-identified problems. Changes were documented through observation and artifacts. Process changes were also documented. The entire project was assessed against a theoretic model of change.

Activities formally began with a one-day information and orientation session followed by a two-day workshop where project plans, objectives, and strategies were presented. There were four school groups of 4-7 persons each. The buildings were primary, elementary, middle and high school. Central office administrators attended whenever possible. The groups met on a regular basis, university personnel and consultants attended all meetings. Each meeting involved a preplanned process of group sharing and discussion, work on agendas, reporting of success/failure, etc. Sessions were held on school time away from schools for 6-8 hours each.

Internal validity (how well research findings represent reality) was ensured through triangulation; member checks; long-term, on-site or repeated participatory research; and acknowledging and clarifying the researcher's biases (Merriam, 1988). The project made use of multiple data sources and methods (triangulation).

Reliability, in the traditional sense, refers to the extent to which a study can be replicated, and also depends on a reality that is static and unchanging. "Dependability" or "consistency" are more useful terms in qualitative research and simply mean that consumers agree that the results make sense, given the data available (Lincoln & Guba, 1985, cited in Merriam, 1988). These issues were addressed by a thorough explanation of: (1) assumptions and theories underlying the study; (2) procedures and social context of the study; and (3) multiple methods of data collection.

Data derived from pre/post surveys, observations, content analyses and concrete examples of documented changes. A major unobtrusive result was that the superintendent has made full implementation of the process throughout all district schools a goal for 1990-91.

Summary of Some Outcomes

After only one full year, all projected outcomes were achieved. The project addressed all 12 Daresh and LaPlant (1984) concerns about in-service; participants were extremely positive in their assessment of the Collegial Group as in-service. By working all year on problems they chose, groups could see results and, as leaders working with the rest of the faculty, they felt like professional leaders.

Participants developed for each of the four schools a summary of key outcomes. These summaries showed actual and documented outcomes of project efforts.

Comparison of project processes and the theoretic change model showed that the project moved from awareness of new ways to actual implementation of new ideas in classrooms and in the school. Two school teams set in motion changes that were implemented system wide, not just in the schools in the project.

Principal response to and involvement in the project varied. One principal retained a veto of one in group deliberations. Another principal totally became a team member. The other two fell between the two extremes. Collegial group successes were more noticeable where the principal was a team player/facilitator than where the principal was a gatekeeper.

SOME PROJECT SIGN DETAILS

A cooperative learning activity built at least partially upon a problems-of-practice approach has potential for guiding educators to understand and define education problems -- to move them from reacting to externally defined problems (what Getzels calls presented problems) to defining problems of education actively and accurately (what Getzels, 1979, calls discovered problems). A synopsis of three of Getzel's problems is in Figure 1. Education leaders need to identify education problems and then seek powerful and creative solutions to them. Project SIGN emphasized concrete, problem-based activity with an emphasis on the "Discovered Problem," especially for each school's unique improvement goals.

Project SIGN is mostly about change, processes and improvement; it is a continuing event. This paper only includes "results" for activities between 9/89 and 6/90; the CLDS administration initiated continuation and expansion for 1990-91. During 1989-90, investigators took "field notes" as unobtrusive participant observers in the SIGN process and discussed their notes at a later time. Meeting agendas, minutes, records and continuing events (e.g., meetings of teams with CLDS administration to present ideas and discuss/negotiate changes) contain the "real stuff" of SIGN. Table 1 summarizes the 13 SIGN sessions and shows corresponding dates, facilitators and major topics and events for each session.

1. PRESENTED PROBLEM SITUATIONS. A problem with a known formulation, known method of solution, and known answer is proposed by someone else and given to the problem solver. (This is the situation most prevalent in schools. Think of all of your classes and subjects. Given that the side of a square is four feet, what is the area?) The person applies technical problem-solving skills.

2. DISCOVERED PROBLEM SITUATION. The problem exists, but is formulated by the problem solver, not by someone else. It may not have a known formulation, known method of solution or a known solution. Why do children, at about grade 3 or 4, begin to seem to dislike school when almost all children are initially eager to attend school? Is this an American education phenomenon, or does it exist in other cultures?

3. CREATED PROBLEM SITUATIONS. No problem is evident until someone creates or invents it. An artist creates a painting. A poet expresses beauty through an ode. An advertising artist may be given a problem -- design an illustration for an advertisement. Another artist starts with a blank canvas and proceeds to create a problem which the same artist then moves to solve.

Figure 1 Three Categories of Problems (excerpted from Getzels, 1979, p. 11) to show one key difference in Problem Solving (Presented Problem) vs. Problem-Finding (Discovered and Created Problem Situations).

TABLE 1.

1989-90

NOTE: Each meeting began with an article critique and/or progress report, ended with a gameplan, and provided time for large group and small group work. All events were day long except those marked with *. The two-day meeting was held at Atlantic Beach, regular meeting were held at the Officers' Club, and other meetings were held in the schools.

DATE	FACILITATORS	TOPICS/EVENTS
*10/13/89	Achilles Gaines	SIGN background, school reform, Teacher Collegial Groups (TCGs), instructional leadership, shared decision making (SDM), site-based management (SBM), school goals.
11/8/89- 11/9/89	Achilles Brubaker Keedy Gaines	SBM, instructional leadership, SDM, personal leadership, feedback, TCGs.
12/6/89	Achilles Gaines	Project evaluations, **school project topics (students at risk strategic planning, learner outcomes, shared planning time, school management teams).
*1/9/90	Gaines	Project funds, communication of SIGN projects within CLDS, ** school project topics.
2/16/90	Achilles Gaines	School reform and restructuring, change, class size, **school project topics.
*2/26/90	Gaines	Presentations of group projects to CLDS administrators by SIGN groups.
3/13/90	Bell Gaines	Systems theory, strategic planning, site-based management, organizational culture, program evaluation, professionalism, feedback on SIGN data collection.
4/3/90	Achilles Gaines	Site visits to participating schools.
4/20/90	Achilles Sloan Brubaker Gaines	Participatory school-site management, project evaluation **school project topics.
5/1/90	Bell Gaines	**School project topics
6/5/90	Achilles Gaines	SIGN evaluations, data collection, project presentations, certificate presentation.
6/8/90	Bell Gaines	Consensus building with High School SIGN team.
*6/14/90	Gaines	System wide recognition of SIGN participants.

DATA RELATED TO THE CHANGE PROCESS MODEL

In keeping with the theoretic considerations of the change process model (Figure 2), Project SIGN employed the following processes for each of the three steps. These listings are descriptive, not inclusive.

Level I: Dissemination (Awareness and Conceptual Control). Prereading materials (articles, selections, etc.) of the type listed in Appendix A; brief lectures by consultants on selected topics (change, strategic planning, collegial groups, school restructuring); one-way communication processes (information about SIGN, reports of progress); and sharing of stories about systems where certain goals had been accomplished.

Level II: Demonstration (Trial, Skill-Building). Visits to other systems; group process work sessions that were the "heart" of SIGN monthly meetings; sharing among groups during and between SIGN sessions.

Level III: Diffusion (Use, Adoption). Reports to and meetings/negotiations with teachers back at school; meetings with administration, implementation of SIGN ideas ("at-risk" student tracking, five-year plan, "on-the-wall" curriculum, etc.).

The idea of Level IV activity (see Appendix B), generally a refining and expanding of activities, was evident in the inclusion aspect when SIGN teams invited other members of school faculties to participate in SIGN meetings. In this way original SIGN participants assumed the role of mentors to teach new persons the processes that the SIGN persons had been using.

The two outcomes reported to this point -- CLDS administration interest in continuation and the movement of SIGN activities through the change process -- would signal project success. However, there is much more.

INITIAL GOAL SELECTION/CHANGE AND EXPANSION

Each of the four SIGN school teams selected an initial goal by the end of the two-day seminar. (Some made changes or added goals as the year progressed.) One task for the higher education consultants was to obtain resources (e.g., bibliographies, prior research, ideas) to help each group. The original goals, by school, were as shown in Table 2. Some goal

ELEMENT OF COMMUNICATION				MANAGEMENT/EVALUATION STEPS OR GUIDES		
Stage of Change Process* (Messages) (1)	Facilitators (Transmitters) (2)	Channels or Processes (3)	Audiences or Targets (Receivers) (4)	Purpose (5)	Results/ Action Taken (6)	Evaluation: Methods/ Outcomes (7)
SPREAD Awareness Interest (Initiation: Mobilization) Knowledge and Persuasion	Theorist, Researcher, Public "Popularizer", Professor, State Facilitator.	Dissemination. Mass communication. Spreading the word. One-way. Speeches. Journals. Awareness sessions.	Policy Persons, School Boards, Large groups of Educators including potential adopters (teachers)			
CHOICE/EXCHANGE Evaluation Trial (Implementation) Decision	State Facilitator, Supervisor, State Education Agency Personnel, Developer/Demonstrators.	Demonstration. Some two-way. Observation of practices and processes. Small groups. (Visitations)	Change Agents, Supervisors or Innovative Principals. Job-specific groups (e.g., special education).			
IMPLEMENTATION Adoption or Adaptation (Incorporation) Confirmation	A D/D or certified trainer. Usually a peer. Someone similar to the potential user.	Diffusion. Two-way; One-to-one. Application and practice. Individual; "Hands-On". Training sessions. Effect.	Single ESP groups, Small groups of teachers, Individual adopters			
IMPACT or RESULT	Evaluators. D/Ds	Reports	Policy-makers			

*Terms in ( ) are from the RAND studies (Berman, et al) Terms in CAPITALS are from the DAG. Underlined terms are from Rogers (1962) and lower case regular terms are from Rogers and Shoemaker (1971). For basic model, see Achilles and Norman (1974).

Figure 2. Communication/Change Matrix Relating Elements of Communication Theory and Change Process as a basis for planning, designing, conducting and evaluating SKN efforts. Columns 5-7--- and additional ones that might be added--provide management direction and assist in evaluation.

TABLE 2. SUMMARY OF ORIGINAL SIGN GOAL FOR EACH SCHOOL, GOAL REVISIONS, AND SOME PROGRESS/PROCESS/AND RESULTS. (SIGN, 1989-1990)

School and Original SIGN Goal	Goal Refinements and/or Revisions	Selected SIGN Outcomes for Refined/Expanded Goals (by School)
TARAWA TERRACE 2 (TT2) School-based intervention for at-risk pupils; Grades 3-6; 5 Team members.	Establish library and resources for "at-risk" intervention; Parent involvement.	Parent meetings (establishing contact and support). Beginning of an at-risk library (for future use by all teachers/parents). Involvement of other teachers in SIGN and helping them with at-risk cards (increasing support and knowledge of all teachers).
LEJEUNE HIGH SCHOOL Setting high student expectations; Grades 9-12; 6 Team members.	Communication; Governance shared decisions.	Presentation to faculty meeting (introducing the idea). Team meetings attended (selling the idea). Meeting with Dr. Brubaker and Dr. Hager (clarifying positions).
TARAWA TERRACE 1 (TT1) Plan for comprehensive school improvement; Grades K-2; 7 Team members (Refine plan for National Recognition).	Plan for school change from K-2.	Application for school of excellence (self-study). Meeting with Dr. Sloan and proposal for remaining K-2 (change, negotiation). Trips to the school in Durham (networking with other schools, sharing knowledge about developmental classes).
BERKELEY MANOR A means to communicate among grade levels re: curriculum; Grades K-4; 4 Team members.	Plan ways to get staff time for expanding SIGN-type in-service.	Explorations-Supermarket Science (introducing the idea about team planning time; negotiation with other teachers; hands-on learning about change). Information from other schools about "early dismissal" (from the local system to the big picture).

accommodation was evident as teams actively implemented and evaluated their plans. Table 2 also lists some of the changes and outcomes for SIGN efforts at each school.

OUTCOMES

Some SIGN projects resulted in "paper" products. TT1 has a 5-year strategic plan; Berkeley Manor has a written statement of expected student outcomes, an "on-the-wall" curriculum and a written proposal to the superintendent for increased team planning time; LHS has a proposal for a new governance structure; TT2 has surveys from parents about parent meetings. These products are evidence of progress toward, or completion of, goals. School-by-school results show evidence of achieved changes.

BERKELEY MANOR: The Berkeley Manor SIGN team's original goal was to develop an "on-the-wall" curriculum to facilitate communication about expected learner outcomes. Working with established teacher teams in the school, they achieved this outcome. The team found that their project anticipated a system-wide goal that was implemented during the school year. All seven schools in the system developed learner outcomes that were consolidated into a system-wide document. The Berkeley Manor Team reported that both teachers and students benefitted directly from a clear definition of learner expectations. An unexpected outcome of the SIGN project at Berkeley Manor was that the team members realized the need for shared planning time to complete the learner outcomes project. This lead to an immediate solution proposed by the Special Areas Team in the school that resulted in a "Supermarket Science" exploratory for students. The exploratory gave teachers the planning time they needed to complete the learner outcomes project. In addition, the SIGN team researched and developed a proposal for an early release time for planning purposes. The team would have benefited by having more members and by increasing the awareness of SIGN in the rest of the school faculty. The team felt that released time for participants away from the school site was an essential part of the SIGN project.

LEJEUNE HIGH SCHOOL. Lejeune High School SIGN members sought to implement a new, more participatory structure for planning and governance at the school. By year's end the team had communicated the goal and established support for the project. A body of teacher participants was elected and, with the principal and assistant principal, received training in consensus building. The SIGN team struggled with this ambitious project throughout the school year and experienced feelings of uncertainty and frustration with difficulties they encountered. The members gained first-hand experience with how change occurs in an organization and are now aware of the considerable progress they made. They have a solid beginning for the next school year and would like to see greater involvement of the administration in the team's activities. The team reported that teachers in the school benefited by an improvement in morale and that students, parents, and teachers will benefit more when the committee is in operation. They would improve their committee by increasing the administration's confidence in their decision making skills and by reducing the political aspects of implementing change. Essential components of the SIGN process were: time to develop trust among members; freedom to have off-site meetings; continual feedback to the faculty; and openness of discussion among members. A significant outcome of SIGN was that it became institutionalized in CLDS. The LHS team learned that communication is a key element in a small-group environment.

TARAWA TERRACE 1. TT1's goal was to develop a five-year comprehensive school improvement plan. The team started with a self analysis/needs assessment and ended the school year with the

written improvement plan. They came to SIGN with a strong sense of purpose and prior experience working together. Camaraderie was high and the principal functioned as a strong leader in this group. The team morale remained high even when some of their recommendations were not approved by the central administration. They learned that the superintendent is open and receptive to proposals although he may sometimes reject them in the interest of broader, system-wide considerations. The team also learned about collaboration and planning on both the school and system level. They used the self-knowledge gained through SIGN to improve their school's climate by an increased emphasis on wellness. They planned a professional library for the school. TT1 SIGN felt that university support and released time away from school were essential project components. They discovered that developing a five-year plan in an overwhelming task. Another unexpected result of SIGN was that a teacher in the school who was not on the SIGN team started a student school improvement team to survey staff and other students in this K-2 school about needed improvement.

TARAWA TERRACE 2. TT2 School's goal was to prevent the academic failure of students at risk. This goal grew out of work the previous year with the TT2 CORE team. Through SIGN, the team identified students at risk, completed referrals on these students to the CORE team, and planned intervention strategies. They successfully involved other teachers in the school an approved in-service workshops on at-risk interventions. They held three parent meetings to increase parent awareness and involvement. The SIGN team was happy to discover that they could use SIGN money to start a professional library of materials on at-risk students. Dr. Rita O'Sullivan at UNCG provided the initial list of materials. Testing in the spring revealed a lower percentage of at-risk students than in the previous fall. The SIGN team reported that student achievement resulted in improved self-esteem. Some students were removed from the at-risk classification. Parents grew through increase knowledge of their children and had a stronger feeling of usefulness. The System benefited from progress toward its goal of improved student achievement. The TT2 SIGN team felt that they would have benefited from more knowledge of SIGN objectives prior to goal selection so that SIGN and CORE committees would not overlap. They reported that open communication and wide representation of teachers (grade/area) were important SIGN components. The team was especially gratified at the depth of parent interest in the at-risk program and at the bonds and communication established between parents and students. Although TT2 had reservations about the overlap of SIGN and CORE, the result of their effort was wide involvement of parents, teachers, and students in the at-risk project.

OTHER OUTCOMES

Program evaluations completed by participants indicate clearly that SIGN members experienced strong feelings of involvement and efficacy in connection with their work on the project. They reported that SIGN was more collegial, productive, and effective than traditional in-service approaches. They appreciated that projects were selected by school-based teams but recognized the support received from the central office. According to participant responses, the structure and process promoted teacher participation, open and honest communication, the formation of networks to achieve common goals, and the opportunity to develop "experts" within the school groups. Participants also valued the long-term nature of the project accompanied by periodic follow-up leading to "real change." They appreciated being provided targeted or

selected articles/materials relating to SIGN tasks. (See Appendix F) They felt that time away from the school site was essential to getting the job done with minimum time lost due to interruptions characteristic of the school day. Written and spoken comments conveyed a true sense of involvement in processes that "made a difference" in the schools. Throughout the year, teachers voiced their desire to be involved in activities that had a real effect on school practices and policies.

PROCESS NOTES

SIGN was primarily a study of processes, and secondarily a study of products. Outcomes of SIGN, for school operation and for identifiable changes in student services, were apparent and analyzed. At the third (12/6/89) and at the final meetings (6/6/90) participants responded to five open-ended questions on a "SIGN Progress Report." A summary of the five questions and the numbers of responses are shown in Table 3.

Researchers reviewed and categorized the responses. Some items received more than one response on a response sheet. In December (the "pretest") some teams compiled the ideas into one response sheet; in June ("post test") each respondent chose to do a single response sheet. For ease of comparison, Table 3 shows both the number (n) of responses and the rounded percents (%) based on the 12/89 responses (N=7) and 6/90 responses (n=21).

Generally, at both pre and post, the groups and individuals had positive regard for SIGN. Consistently positive comments were made about the mix/structure of the group and about the meeting format (especially meeting away from school) The participants also made consistently positive comments about the communication, support, feedback idea sharing, teamwork and goal accomplishment. Of particular interest were comments (almost all positive) that reflected strengths of SIGN as an in-service strategy [relative to the Daresh and LaPlant (1984) guidelines for effective in-service] and the value of including the administrator in the group. The comment, "We need the administrator present to do this because of the knowledge/expertise she has re: policy. . ." expresses the view well.

Eleven respondents felt that SIGN had helped principals develop strategies for instructional leadership, six disagreed with this, and five felt that it was not applicable to their

Table 3. Summary of SIGN Progress as Reported in 12/6/89 (n-7) and 6/6/90 (n-21) by Responses to Five Open-Ended Questions

Questions	Value	Response Category Summary (some examples included)	Number of Responses* 12/89 (n=7)		6/90 (n=21)	
			n	%	n	%
1. Structure of School Teams	Positive	Worked Well, Good	2	29	4	19
		Good Mix (Adm., etc.)	5	71	11	52
		Each Grade Level Incl.	1	14	6	29
	Negative	Select. Process (elect vs select)	1	14	1	5
		Adm. Dominance/More Open	2	29	--	--
		Adm. Should Attend	1	14	--	--
		Overlap with C.O.R.E.	--	--	4	19
		Must Have OK Mix	--	--	5	24
2. Structure of Large Group	Positive	Good Mix/Structure	6	86	15	71
		Good Communication	1	14	8	38
		FUN	--	--	2	10
		"Univ. Added Breadth; Adm. dropped in and added; Learned new ways of organizing and working"				
	Negative	Should be one level (Elem)	--	--	1	5
		Need more time/better mix	--	--	2	10
		Repetitious	1	14	--	--
		More Univ. persons	1	14	--	--
3. Meeting Format	Positive	Good. 2-day was great.	5	71	13	62
		Away from School	5	71	14	67
		Allows Communication/Sharing	--	--	9	43
	Negative	More time for indiv. work "Fewer Lectures"	2	29	2	10
4. Functions of Your Team	Positive	Identify Goals	5	71	--	--
		Accomplish Goals	2	29	11	52
		Good Goals	--	--	5	24
		Teamwork	1	14	10	48
		Evolving Process	--	--	3	14
	Negative	Overlap with CORE Team already in place	2	29	3	14
		Need More Persons	1	14	--	--
		Difficult to achieve/implement goal	1	14	3	14
5. Function of Large Group	Positive	Feedback/Support	5	71	14	67
		Idea Sharing	2	29	15	71
		Getting Better (Evolving)	--	29	--	--
	Negative	More Interacting among Groups	--	--	3	14

*On 12/6 most teams turned in one consolidated sheet; on 6/6/90 each individual chose to submit a form. (This may say something about personal growth and security.) Researchers developed categories through content analysis.

situations. Reasons given for disagreement were: teachers are often the instructional leaders and principals are sometimes followers in this area; some principals may not have taken advantage of opportunities for instructional leadership provided by SIGN or are already strong in instructional leadership and did not necessarily improve due to SIGN.

Twenty (of 21) respondents agreed that SIGN had reduced isolation and increased collaboration to improve instruction, twenty respondents agreed that SIGN had this effect. One person did not respond to this item. Specifically, participants valued the time to work with members of their own school teams in an uninterrupted fashion, as well as the time to work with participants from other schools, grade levels, and subject areas. They recognized the value of identifying goals, planning, and sharing information and new ideas through this process and felt that all schools in the system should be included. They felt that the input and facilitation by university personnel was a strong component of the SIGN process, as was the support of the CLDS central administration. Some respondents felt that more emphasis should be placed on the "professional dialogue" made possible by SIGN.

The opportunity for collegial/collaborative interaction was listed by eleven participants as the single most important result of SIGN. Nine respondents felt that time to work toward a common goal was the most important result, while eight listed empowerment as most important. Trust building, time, and the opportunity for uninterrupted work away from the school site were each listed in this category.

All respondents except one felt that SIGN would have lasting results even if it were not continued. One felt that SIGN would not have lasting results unless it continued. The largest number (11) felt that the lasting impact would be the result of the group projects, especially those that were implemented system-wide. Others listed possible lasting results as: openness and sharing with colleagues (4); teachers and administrators working together as colleagues (2); teacher morale; trust; group process to use in the school setting.

There were several observable changes in schools. These included such things as new ways to deal with at-risk pupils, increased parent involvement, use of research ideas and a new professional library, new structure for school-wide planning and governance, ideas for

expanded planning time and innovative use of special teachers to free up time for group planning, plans for changing from one grade level grouping to another, student involvement in school improvement, more clearly stated exit skills by grade level, five-year plan, and others. Several SIGN ideas expanded to the entire system: SIGN-type groups in each CLDS school (1990-91), specification of exit skills for each grade level, and a proposal for finding ways to build planning time into the work schedule.

The entire process was a demonstration of a new type of in-service which met the points suggested by Daresh (1987). (See Appendix C.) The SIGN emphasis was on continuity [accomplish a major goal through a series of "gameplans" (Keedy, 1988), and share progress among groups]. The SIGN groups worked on site-specific goals, often seeking ideas and resources from the higher education partners. SIGN teams expanded their impact by taking ideas back to other faculty, inviting faculty to visit SIGN meetings, and by presenting their ideas to the CLDS central administration. This process helped the central administration recognize the problem-finding/problem-solving skills of teachers and strengthened administrative receptivity to SIGN ideas. Being away from the school site and treated as professionals (Grumet, 1988) increased teacher feelings of efficacy and built the in-service into an active process (Daresh and LaPlant, 1984).

The SIGN process was built so as to reduce teacher isolation, increase collaboration and improve instruction. The meeting site and structure are evidence of success. The improved student outcomes (e.g., the at-risk effort at TT2), the development of grade-level outcomes, the new governance structure, the work of SIGN back at school sites to involve other faculty, and the Explorations event are examples of collaboration, reduction of teacher isolation and improved instruction. The CLDS plan to develop SIGN-like groups in each school in 1990-91 is evidence of the potential for lasting change built upon SIGN processes.

SIGN was designed around a three-step change process model (Achilles and Norman, 1974) and SIGN activities addressed all three steps. Project success suggests that the model portrays a theoretic approach to interactive change processes built upon varying levels of communication strategies/intensity. Researchers should have emphasized the awareness level a

bit more, as some SIGN participants explained that they did not really understand the process and goals until part way through the project. This might have been accomplished by using some readings and information prior to the October planning meeting, rather than between October and November. Examples of tone-setting materials are Grumet, 1988; Keedy, 1989; Daresh and LaPlant, 1984; Joyce, et al. (1989), or even the SIGN proposal. Time spent at this level (level I or awareness) may have facilitated successes later.

CONCLUSION

Project SIGN provides evidence that education professionals are anxious and ready to assume responsibility for site-based education improvement. Project SIGN results for the time reported here (10/90-5/90) were positive, and SIGN activities have been continued (1990-91) in the local system. The listing of outcomes in the paper is supported by SIGN's fidelity in meeting the test of various theories and models which, in effect, provided a framework for the evaluation. SIGN efforts followed and expanded upon five models which were used to form a theoretic/conceptual base. Those models include those shown in Table 4.

Table 4. Models used for comparison on Project SIGN to evaluate success as a change process and to affirm SIGN's conceptual base.

Model or Theory	References (Selected)
Change Process and Communication	Achilles and Norman (1974) Achilles (1986) Achilles, Brubaker and Snyder (1990)
Inservice Programming	Daresh (1987) Daresh and LaPlant (1984) Daresh and Playko (1989)
Adult Learning	Knowles (1980, 1984) Cranton (1989) Mouton and Blake (1984)
Situated Cognition and/or Cognitive Apprenticeship	Brown, et al. (1989) Perkins and Salomon (1989) Prestine and LeGrand (1990) Cognition & Technology Group (1990)
Teacher Collegial Group or Site Teams	Keedy (1988, 1989) Joyce, et al. (1989)

APPENDIX A

SCHOOL IMPROVEMENT GROUPS NETWORK

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(a partial listing)

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Level / Activity	I	II	III	IV
Purpose	Understanding. Conceptual Control.	Skill Building. Expanded Knowledge Base.	Transfer of Skill and Knowledge.	Application of Skills and Knowledge. Relationships.
Relation to Change	Awareness/Interest; Initiation.	Trial/Evaluation; Implementation.	Use/Adoption; Incorporation.	Institutionalization and Renewal.
Method(s)	Lecture, Reading. Some Question-and-Answer. Didactic. One-way Communication.	Demonstration. Discussion. Group work; Critique & Question/Answers. Two-way Communication. Case studies; Case record.	Practice with Feedback. Simulation; Role Play. Involvement. Coaching; Counseling. Development of "Action Plan."	Practice with Feedback. Synthesis and Application. Counseling.
Targeted Audience	Undefined: Uncertain.	General Definition.	Specific Definition.	Precisely Defined.
Mode(s)	Large group. Individual.	Small group. Individual	Small group; mostly One-on-one.	Pairs, Teams, Coaching. Individual work.
Assessment Strategies	Paper-pencil Tests.	Oral and Written Test Processes.	Observe & Critique. "Paragraph Analyses." Elaborate Design Possible.	Discuss/Refine. Informal Processes. Elaborate Design Possible.
Learning Style(s)	Cognitive: Print-Oriented.	Oral/Aural.	Interactive/Motor.	Combined. (several)
General Relation to M. Hunter	Instructional Input	Instructional Input. Modeling.	Check Understanding. Guided Practice.	Independent Practice and Improvement.

B-1

APPENDIX B. Detail of concepts from Figure 1 (p.11) showing activities related to steps of the change levels SIGN processes followed the theoretic model.

Leadership and Preparation Elements	Change Dimensions: Knowledge & Conceptual Control	Skill Building	Transfer of Skill	Independent Practice & Growth	Potential Outcomes
A. Study of Practice. Problem Identification and Analysis, Problem Posing. Separate Symptoms and Problems. Focus on Site-Specific Issues.	Self-Assessment. Reflection, Vision. Discrepancy Analysis. Site-Specific Org. & Problem Analysis. Nature of Problems.				Real or Discovered Education Problems that are Administratively Mutable
B. Study of Theory. Acquiring a Knowledge Base and Skills for Problem Solving and Improvement of Practice. Designing Improvement Strategies.		Self-Assessment Change Processes Evaluation Human Relations Communications Org. Development			Armementarium Necessary to Initiate & Evaluate Change & Improvement
C. Demonstration/Use of the Knowledge Base in a Leadership Setting; Evaluation of Results. Implement and Study Change (leader) Acts.			Mentor-Teams Practice in New Settings. Work in Community & School. Self-Assessments.	Continuing Synergistic Model; Reflection & Sharing. Move to Evaluating & Using Data.	Improved Education Practice: New Concepts of School, Culture and Professional Practice.
D. School Commitment: A Directed & Planned Emphasis on Improvement	Restructure the Culture at the Setting. Work to Establish the New Expectation. Develop an Organizational "Safety Net" to Allow Person to Use New Ideas, Skills and Strategies. Emphasis on Client (Close to the Customer).				Restructured School/System to Accommodate New Ideas & Processes.

B-2

Figure 2. Model of progression of training showing three primary levels of emphasis (A,B,C) with selected examples. Level D shows school commitment and accommodation for new Activities. Traditional preparation programs follow the BAC Theory-to-Practice format; new models might try the ABC path, moving from Practice to Theory.

APPENDIX C

COMPARISON OF SIGN WITH CHARACTERISTICS OF EFFECTIVE IN-SERVICE PRACTICES (DARESH AND LAPLANT, 1984)

Daresh & LaPlant	SIGN
1. Effective in-service is directed toward local school needs.	1. SIGN needs were identified by site-based teams.
2. In-service participants are actively involved in the planning, implementation, and evaluation of programs.	2. SIGN participants planned, implemented, and evaluated their own improvement projects, assisted by consultants.
3. Effective in-service is based on participant needs.	3. SIGN teams identified their own needs.
4. Active learning processes, rather than passive techniques such as lectures, characterize effective in-service instruction.	4. SIGN teams actively implemented their plans and constantly updated them during the school year. Lectures were only a minimal part of the SIGN process.
5. In-service that is part of a long-term systematic staff development plan is more effective than a "one-shot," short-term program.	5. SIGN was carried out for an entire school year and will expand and continue during the following year.
6. Effective local school in-service is supported by a commitment of resources from the central office.	6. The central office committed substantial support in the form of substitute pay, released time for participants and co-director, and logistical support.
7. Effective in-service provides evidence of quality control and is delivered by competent presenters.	7. SIGN presenters were university professors with expertise in the subject areas. SIGN participants and presenters monitored the progress of projects.
8. Programs that enable participants to share ideas and provide assistance to one another are viewed as successful.	8. A particularly strong component of SIGN was the emphasis on professional collaboration, feedback, and assistance.
9. In-service programs are effective when they are designed so that individual participant needs, interests, and concerns are addressed.	9. Individual participants received renewal credit as well as considerable reduction in feelings or professional isolation. Needs identified were school-centered rather than focused on the individual.

10. Rewards and incentives, both intrinsic and extrinsic, are evident to program participants.	10. Feedback from SIGN participants indicates awareness of both intrinsic and extrinsic rewards and a desire for SIGN to continue.
11. In-service activities are provided during school time.	11. SIGN was carried out during school time.
12. Effective in-service is accompanied by ongoing evaluation.	12. Informal up-dating occurred at each meeting, with more formal evaluation conducted periodically throughout the year and at the end of the year.